



■ Features :

- AC phase-cut dimming
- Work with leading edge and trailing edge TRIAC dimmers
- Built-in active PFC function
- Constant current design
- Protections: Short circuit / Over temperature
- Cooling by free air convection
- Fully isolated plastic case
- IP30 design
- Class II power unit, no FG
- Suitable for indoor LED lighting applications
- 100% full load burn-in test
- Low cost
- High reliability
- 3 years warranty

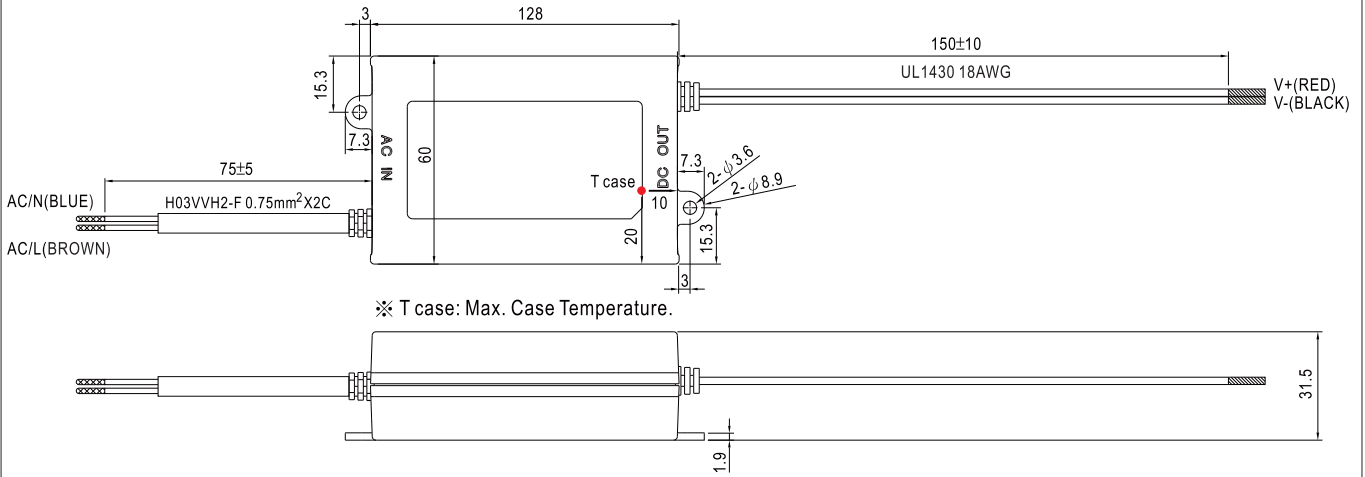


SPECIFICATION

| MODEL           | PCD-40-350B  | PCD-40-500B   | PCD-40-700B | PCD-40-1050B | PCD-40-1400B | PCD-40-1750B |          |
|-----------------|--|---|-------------|--------------|--------------|--------------|----------|
| OUTPUT          | RATED CURRENT  | 350mA   | 500mA       | 700mA        | 1050mA       | 1400mA       | 1750mA   |
|                 | OPERATING VOLTAGE RANGE  | 70 ~ 108V   | 45 ~ 80V    | 34 ~ 57V     | 22 ~ 38V     | 17 ~ 29V     | 13 ~ 23V |
|                 | CURRENT ACCURACY   | ±5.0%   |             |              |              |              |          |
|                 | RATED POWER  | 37.8W   | 40W         | 39.9W        | 39.9W        | 40.6W        | 40.25W   |
|                 | RIPPLE & NOISE (max.) Note.1   | 9.5Vp-p   | 5.0Vp-p     | 3.1Vp-p      | 2.6Vp-p      | 2.5Vp-p      | 2.4Vp-p  |
|                 | NO LOAD OUTPUT VOLTAGE (max.)  | 118V  | 100V        | 63V          | 50V          | 35V          | 35V      |
| SETUP TIME      | 1200ms / 230VAC at full load   |   |             |              |              |              |          |
| INPUT           | VOLTAGE RANGE  | 180~295VAC  |             |              |              |              |          |
|                 | FREQUENCY RANGE  | 47 ~ 63Hz   |             |              |              |              |          |
|                 | POWER FACTOR (Typ.)  | PF>0.9/230VAC, PF>0.9/277VAC at full load (Please refer to "Power Factor Characteristic" curve)                 |             |              |              |              |          |
|                 | TOTAL HARMONIC DISTORTION  | THD< 20% when output loading≥60%(PCD-40-350B loading≥65%)at 230VAC input and output loading≥75% at 277VAC input |             |              |              |              |          |
|                 | EFFICIENCY (Typ.)  | 87%   | 87%         | 86%          | 86%          | 85%          | 85%      |
|                 | AC CURRENT (Typ.)  | 0.35A/230VAC 0.3A/277VAC  |             |              |              |              |          |
|                 | INRUSH CURRENT(Typ.)   | COLD START 11A (twidth=50μs measured at 50% Ipeak) at 230VAC  |             |              |              |              |          |
| LEAKAGE CURRENT | <0.5mA / 240VAC  |   |             |              |              |              |          |
| PROTECTION      | SHORT CIRCUIT  | Hiccup mode, recovers automatically after fault condition is removed.   |             |              |              |              |          |
|                 | OVER TEMPERATURE   | 105°C ±5°C (TSW1)<br>Protection type : Shut down o/p voltage, auto-recovery                                     |             |              |              |              |          |
| ENVIRONMENT     | WORKING TEMP.  | -30 ~ +50°C (Refer to "Derating Curve")   |             |              |              |              |          |
|                 | WORKING HUMIDITY   | 20 ~ 95% RH non-condensing  |             |              |              |              |          |
|                 | STORAGE TEMP., HUMIDITY  | -40 ~ +80°C, 10 ~ 95% RH  |             |              |              |              |          |
|                 | TEMP. COEFFICIENT  | ±0.03%/°C (0 ~ 50°C)  |             |              |              |              |          |
|                 | VIBRATION  | 10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes   |             |              |              |              |          |
| SAFETY & EMC    | SAFETY STANDARDS   | ENEC EN61347-1, EN61347-2-13 independent, EN62384 approved  |             |              |              |              |          |
|                 | WITHSTAND VOLTAGE  | I/P-O/P:3.75KVAC  |             |              |              |              |          |
|                 | ISOLATION RESISTANCE   | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH  |             |              |              |              |          |
|                 | EMC EMISSION   | Compliance to EN55015, EN61000-3-2 Class C ; EN61000-3-3  |             |              |              |              |          |
|                 | EMC IMMUNITY   | Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, light industry level(Surge 2KV), criteria B                    |             |              |              |              |          |
| OTHERS          | MTBF   | 362.331Khrs min. MIL-HDBK-217F (25°C)   |             |              |              |              |          |
|                 | DIMENSION  | 128*60*31.5mm (L*W*H)   |             |              |              |              |          |
|                 | PACKING  | 0.23Kg/30pcs/7.9Kg/0.58CUFT   |             |              |              |              |          |
| NOTE            | 1. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>2. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers. |   |             |              |              |              |          |

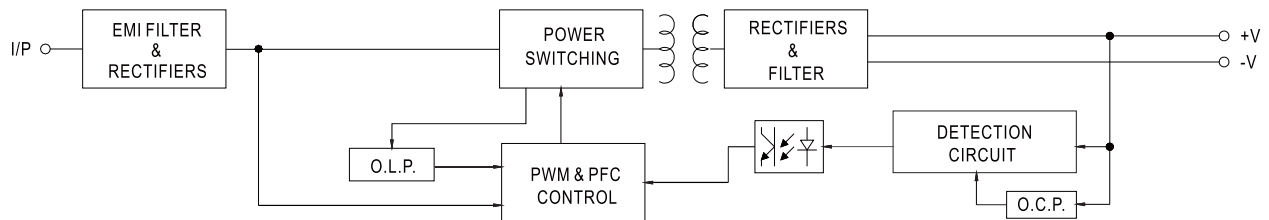
**Mechanical Specification**

Case No.:PCD40A Unit:mm

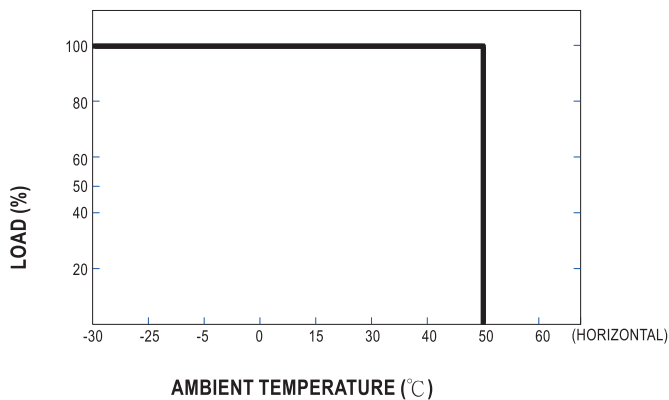


**Block Diagram**

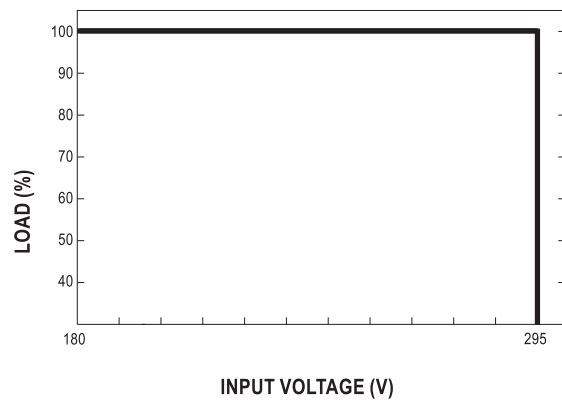
fosc :60KHz(230VAC)



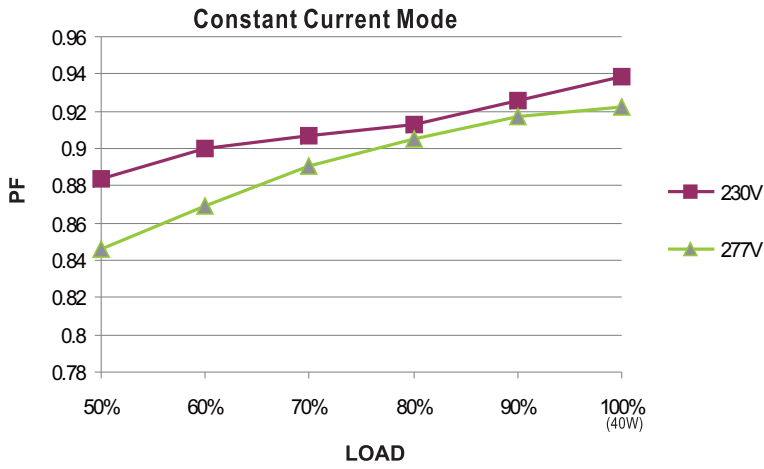
**Derating Curve**



**Static Characteristics**

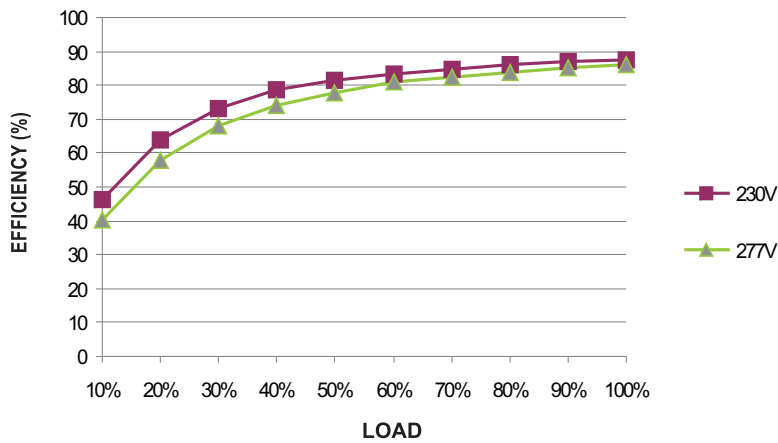


**Power Factor Characteristic**



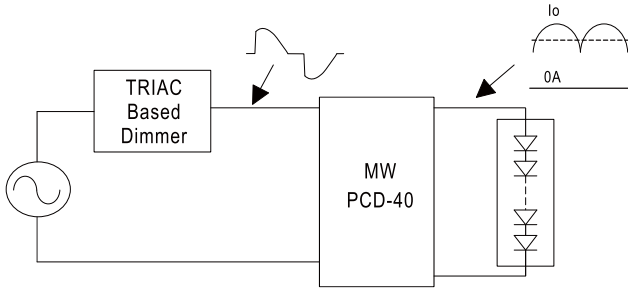
**EFFICIENCY vs LOAD (PCD-40-500B)**

PCD-40 series possess superior working efficiency that up to 87% can be reached in field applications.



**AC Dimming Operation**

⊙ The following diagram depicts a typical installation utilizing the PCD-40 :



Under direct driving, the power supply will work in "constant current mode (CC)" and output voltage of the power supply will be clamped by sum of forward voltage (V<sub>F</sub>) of the LED strip.

⊙ Dimmer Compatibility Chart

| Manufacturer | Dimmer Model               |                     |
|--------------|----------------------------|---------------------|
| LUTRON       | SKYLARK SF-12P-277         | (277VAC / 60Hz)     |
| LUTRON       | DVF-103P-277               | (277VAC / 60Hz)     |
| JUNG         | Licht-Management 225 TDE   | (230VAC / 50Hz)     |
| JUNG         | Licht-Management 225 NV DE | (230VAC / 50Hz)     |
| BERKER       | Tronic-Drehdimmer 286710   | (230-240VAC / 50Hz) |
| CLIPSAL      | 32E450UDM                  | (220-240VAC / 50Hz) |
| CLIPSAL      | NO 32E450TM                | (220-240VAC / 50Hz) |
| CLIPSAL      | NO 32E450LM                | (220-240VAC / 50Hz) |
| CLIPSAL      | Cat 400T                   | (230-240VAC / 50Hz) |

Conduction angle: 30 degrees(min.) / 180 degrees(max.)